



# HANDBOOK

## Serie 400 & 6000



## **Installation scale 400 series.**

Scales from the series 400 are used for weighing of different kind of goods.  
The scale is available in variety of accuracy's and capacities.  
The capacity and accuracy of the scale is printed on the front label of the display.

Put the scale on a stable and not draughty place. The scale is sensitive to vibrations from table, and even the air current might influence the readings.  
If the scale is not stable it will not display any weight.

Connect the scale to the mains via the power converter. The converter is connected into the left side of the display unit. The scale might be powered from 230 VAC mains or via a internal battery.  
(se technical specification for the respective model)

In the case the scale is positioned in an environment with possibility of electrostatic discharge, the scale must be connected to earth. This will prevent electric interference.  
Connect the earthing wire between the screw marked on the display unit and for ex. a water radiator.

**N.B.** The earthing wire should NOT be connected to any type of electrical equipment in the same area.  
(e.g electric radiator)!

If the display unit is provided with an 9-pin RS232C data connector (see technical manual for your model) It can be connected to a computer or printer. Data/printer port is option cable for RS232C is available as accessories.

Switch the main in ON position (some scales are powered when connected to mains via the power converter) The scale starts with a self test. During this a count down is shown on the display.  
When only zeros are shown the self test is completed and the scale is ready for use.

If possible, let the scale be turned on at all times. All electronic equipment will work better and last longer if working with constant temerature, while warming up and colling down will increase wear.

**N.B.** The scale must never bo loaded exceeding the maximum stated.



## Functions.

### Zeroing

Press the "0" button. The scale will show : 0.000

Small zero (o) indicates that the scales zero is  $\pm 0.25 e$ .

Big zero (0) indicates that the scales zero is  $\pm 1 e$ .  
(e = display unit, resolution)

### Taring

Ex,

Place an empty box on the scale. The weight of the box is shown on the display.

Press "TARE" button. The indicator "NET" is turned on and the display will show 0.00

Fill up the box with the goods and read the weight on the display.

Press "TARE" button again and the indicator "GROSS" is turned on and the total weight (the box included) is shown on the display.

Press the "TARE" button to switch between the "NET" and "GROSS" weight.

Press the "0" button to clear TARE setting.

### Zero adjusting.

When the scale is operating for a longer period it is automatically compensating for deviations or changes in temperature.

### Overloading.

Avoid overloading of the scale. The load-cell(s) of the scale might get lasting damages.

The capacity of the scale is printed on the left side of the label on the front of the display.

N.B. All kind of hits and shocks loads will damage the scale!

When overloading the display will indicate ----- in top of display, and underload shows \_ \_ \_ \_ \_

In the bottom of the display.



## **Calibration performed by end user.**

The function for the end user to calibrate are available on all non verified scales in the 400 serie.  
Function will make it easy for user to adjust the scale.

Re-adjustment is only requested if e.g the weight of the scale itself has been changed or if the loadcell has got a small but lasting damage due to overloading.  
Major damage may require changing the loadcell.

### **Calibration.**

- Initial position:** The scale must have been powered for at least 30 minutes.
- Adjust zero position:** Press the "0" button for at least 30 seconds without touching the scale.
- Weight adjustment:** Put a known (calibrated) weight on the scale (if unknown see below).  
Press "TARE" button for at least 30 seconds without touching the scale.  
The scale is now adjusted.
- Adjust weight:** Put a weight of approximately half the maximum weight of the capacity of the scale (see label of the scale). Press "TARE" button for at least 30 seconds without touching the scale.  
Read the weight on display. This is the adjustment weight of the scale.  
Now adjust the scale (see above) with correct weight of adjustment.  
Changing the weight for adjustment can be performed by the subcontractor.



## SERVICE

In addition to the user maintenance the scale should be checked by certified personal at regular bases.

When the scale is not working correctly, or when assistance from certified personal is needed, the following information is important.

- Information on the manufacturers label.
- Working area invironment of the scale.
- Possible divergent miscalculation if any.
- Serial number.
- Mission when used.
- A description of the malfunction.

### Trouble shooting and service.

To ensure proper function of the scale it is imoportant that handling of the scale described in this manual is followed. The scale should be checked on regular bases, of the user as well as of certified personal.

#### SYMPTOM

#### POSSIBLE CAUSES

The scale is showing wrong result.

Scale is tared before use

- Scale is not correct adjusted.
- The scale is not placed on a plane bed.
- Exposition of high temperature changes.
- The scale has been overloaded.

No figures on the display.

The scale is not turned on.

- Mains (when applicated) not connected.
- Wrong mains voltage

----- is shown in display.

Scale overloaded.

\_\_\_\_ is shown in display.

Scale below adjusted zero point.  
Scale top is missing.

## Technical data:

<b>Mains</b>	<b>Adapter 230VAC to 10.5 VDC/ 500 Ma or 230VAC to 12 VDC/ 500mA.</b>
<b>Voltage</b>	<b>230 VAC +/-10% 50-60 Hz Alt. 12-14 VDC</b>
<b>Power consumption</b>	<b>&lt; 10 W</b>
<b>Temperature Range</b>	<b>5 to 35 deg. C</b>
<b>Relative humidity</b>	<b>10% to 95% non condensing</b>
<b>Display unit</b>	<b>153x46x100mm</b>
<b>Taring</b>	<b>Whole scale capacity range (negative indication)</b>
<b>Options</b>	<b>RS 232 communication (Two ways) Battery operation with charging.</b>

**Manufacturer**                      **Scandinavian Scale Company AB**  
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## SPAREPARTS FOR SCALES 400 SERIES.

	Part no:
<b>Adapter/transformer</b>	<b>41211</b>
<b>Indicator for 4015</b>	<b>400-1</b>
” <b>41250</b>	<b>400-12</b>
” <b>41650</b>	<b>400-16</b>
” <b>430150</b>	<b>400-30</b>
<b>Loadcell for scale 4015</b>	<b>1042-07</b>
”      ” <b>41250</b>	<b>1042-100</b>
”      ” <b>41660</b>	<b>416-1</b>
”      ” <b>430150</b>	<b>430-4</b>

